

FED.SUPPLY CLASS

5340

1. SCOPE

- 1.1 Scope – This specification covers caps and plugs (hereinafter referred to as closures) for the protection of thread and sealing surfaces, for prevention of intrusion of dust and moisture and for pressure sealing accessories and parts during storage and shipment.

2. APPLICABLE DOCUMENTS

- 2.1 The following documents of the issue in effect on the date of initiation for bids shall form a part of this specification.

2.1.1 Military Specifications and Standards

- MIL-STD-129 – Marking for Shipment and Storage.
MIL-PRF-5606 – Hydraulic Fluid, Petroleum Base; Aircraft, Missile and Ordnance.
MIL-PRF-6083 – Hydraulic Fluid, Petroleum Base; for Preservation and Testing.
MIL-PRF-83282 – Hydraulic Fluid, Fire Resistant Synthetic Hydrocarbon Base, Aircraft.

Copies can be obtained from the Department of Defense Single Stock Point (DODSSP).

<http://dodssp.daps.dla.mil>

2.1.2 Industry Standards

American Society for Quality

- ASQ Z1.4 – Sampling Procedures and Tables for Inspection by Attributes.

Copies can be obtained from the American Society for Quality, 600 North Plankinton Ave., Milwaukee, WI 53203. www.asq.org

ASTM International

- ASTM D3951 – Practice for Commercial Packaging.

Copies can be obtained from ASTM International, 100 Barr Harbor Drive, PO Box C700, West Conshohocken, PA 19428-2959. www.astm.org

3. REQUIREMENTS

- 3.1 Material – The material used shall be as specified in applicable part standards.
- 3.2 Design and construction – Design and construction of closures shall be as specified in the applicable part standard. Unless otherwise specified, the number of ribs on plastic closures shall be at the supplier's option.
- 3.2.1 Threads – Closure threads shall be suitable for use with mating parts having Class 1, 2 or 3 fits. Aluminum alloy closures shall have a minimum of two full threads. Plastic closures shall have a minimum of three full threads.
- 3.2.2 Closures – Closures shall be constructed to withstand the normal strains, jars, vibrations and other conditions incident to shipping, storage and handling. Aluminum alloy closures shall not seize or produce shavings when applied to the units without the aid of thread lubricants. Rigid plastic closures shall not chip or shred when installed and removed.

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THIRD ANGLE PROJECTION	CUSTODIAN NATIONAL AEROSPACE STANDARDS COMMITTEE	REVISION 1
PROCUREMENT SPECIFICATION NONE	TITLE CAPS AND PLUGS, PROTECTIVE, DUST AND MOISTURE SEAL	CLASSIFICATION SPECIFICATION DAS847 SHEET 1 OF 3

- 3.3 Installation – Threaded closures shall be designed to permit installation and removal by hand with not more than 1 inch-pound thread friction until the sealing surface has come into contact with its mating part. When installed, all closures shall be capable of protecting and, when applicable, sealing the threaded, beaded and tapered surfaces. Climatic conditions shall not affect the performance of the closures.
- 3.4 Durability – Closures shall be capable of assembly and disassembly a minimum of 5 times. They shall be constructed to sustain normal mechanical handling without appreciably diminishing their effective life span. Flexible plastic closures shall not fail when installed hand tight in the parts to be protected and aluminum alloy and rigid plastic closures shall not fail when installed in the parts to be protected with the torques listed in Table I. Closures shall be tested as specified in 3.5.2 and 3.5.3.

TABLE I – MINIMUM TORQUE

THREAD SIZE	INCH-POUND
.3125-24	5
.3750-24	5
.4375-20	5
.5000-20	10
.5625-18	10
.7500-16	15
.8750-14	15
1.0625-12	15
1.3125-12	20
1.6250-12	20
1.8750-12	25
2.2500-12	25
2.5000-12	25

- 3.4.1 Sealing pressure – Unless otherwise specified in the applicable part standard, aluminum alloy and rigid plastic closures shall be capable of holding pneumatic pressure of 2.0 to 5.0 psi without leakage. A gasket or seal may be used if necessary to seal the port. These closures shall be pressure tested in accordance with 3.5.1
- 3.5 Test methods.
- 3.5.1 Sealing tests for aluminum alloy and threaded rigid plastic closures only (exclude ethylene propylene seal) – Samples taken as specified in 4.4.5 shall have the sealing surface wetted with MIL-PRF-5606, MIL-H-6083 or MIL-PRF-83282 fluids, assembled to a fitting connected to an air supply of 2.0 to 5.0 psi air pressure, and immersed in water or other suitable fluid for a period of at least 30 seconds and not more than 1 minute. No leakage shall occur. The applied torque shall be as specified in Table I. The test shall be conducted at room temperature. Samples assembled and tested as previously described shall be immersed in water or other suitable fluid at a temperature of 160 °F ± 2 °F and held for a minimum of 5 minutes. No leakage shall result. The same sample shall then be immersed in MIL-PRF-5606, MIL-PRF-6083 or MIL-PRF-83282 fluids, and brought to a temperature of –65 °F ± 2 °F, held for a minimum of 5 minutes, and subjected to 2.0 to 5.0 psi air pressure. No leakage shall result.
- 3.5.2 Repeated assembly tests for aluminum alloy and threaded rigid plastic closures only – Samples taken as specified in 4.4.5 shall be assembled to the proper fittings with torques specified in Table I. Each selected closure shall then be disassembled and reassembled for a minimum of 15 times. No failure such as thread chipping, shredding, jumping or stripping shall result. No leakage shall occur when subjected to the test described in 3.5.1.
- 3.5.3 Repeated assembly tests for threaded flexible plastic closures only – Samples taken as specified in 4.4.5 shall be assembled to mating parts hand tight. Each selected closure shall then be disassembled and reassembled for a minimum of 5 times without failure. No evidence of thread damage shall result.
- 3.6 Rejection – Failure of a sample closure to pass all the requirements of this document shall be a basis for rejection of the entire lot represented by the sample.

REVISION

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Documents
SHEET 2

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